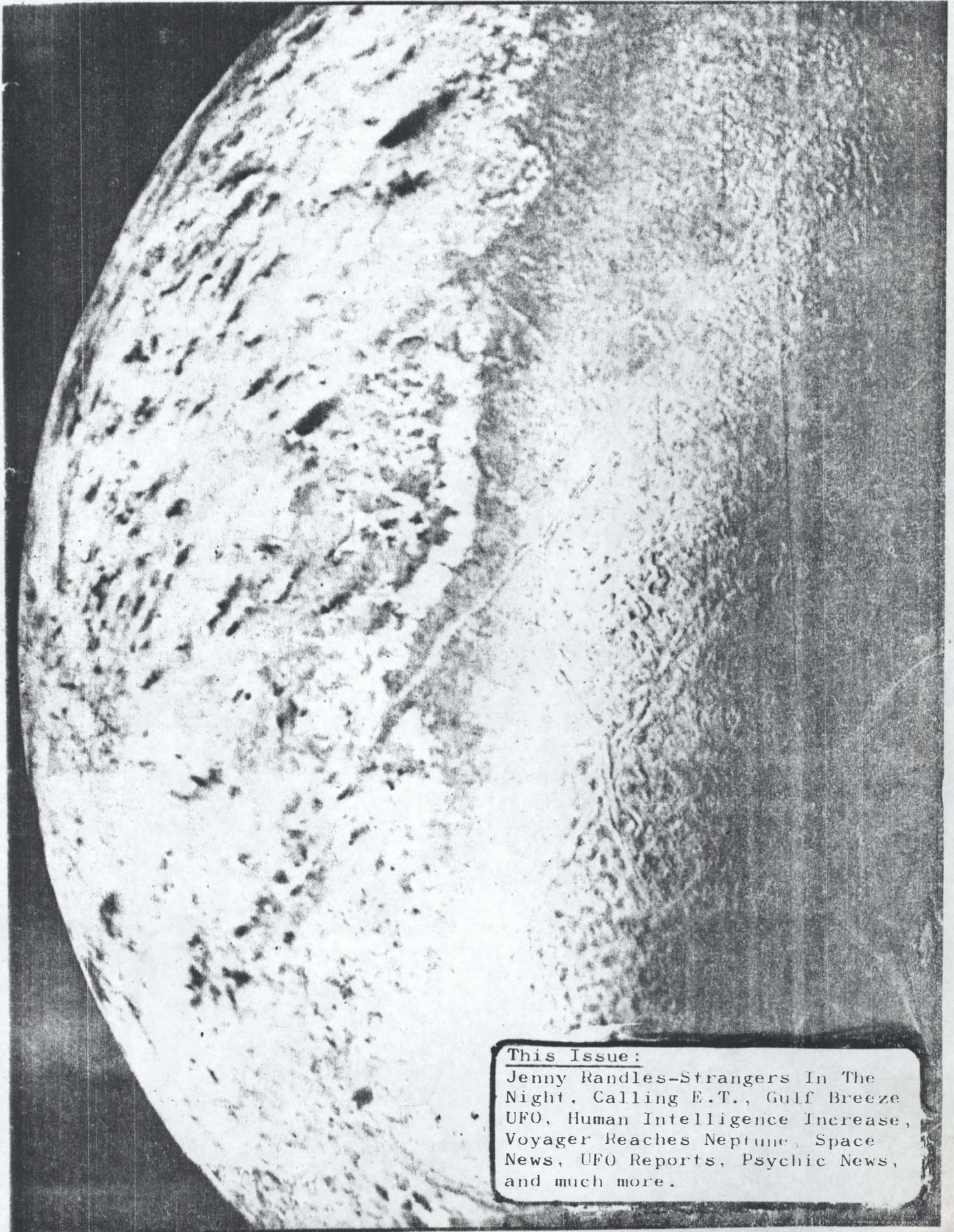


COSMOLOGY NEWSLINK

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This Issue:

Jenny Randles-Strangers In The Night, Calling E.T., Gulf Breeze UFO, Human Intelligence Increase, Voyager Reaches Neptune, Space News, UFO Reports, Psychic News, and much more.

COSMOLOGY NEWSLINK



SINCE 1972

INTRODUCTION

Cosmology is the science of the Universe as a whole; a treatise on the structure and parts of the system of creation. The title COSMOLOGY NEWSLINK, was formulated from the need to fit together inter-related subjects which may or may not have bearings on each other and perhaps leading to the answers or conclusions of some of them - if not all of earth's mysteries in which case this magazine has accomplished its function. Most of our title was suggested by Mr. Patrick Dineen, of Co. Kerry Ireland, We added the LINK.

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VOYAGER-2

August 1989 has been a week of surprises. Just as we were putting the finishing touches to CNK, news came in of the Voyager Probe, which was launched in 1977, had reached Neptune. It is now leaving the solar system after travelling $4\frac{1}{2}$ billion miles to take amazing never seen before photos which we hope to be publishing in a later issue. Voyager 2 came to within three thousand miles of Neptune on Friday 25th August 1989. Photos received showed its weather, new moons and its rings. Neptune was found to be hotter than expected, with hurricane type storms, up to 400 mph. Voyager is using 1960's technology and has now completed its 12-year odyssey round the solar system, and is so far away it takes 4 hours to receive its radio pictures.

Scientists now can see Neptune has rings, like Saturn. Triton, one of the planet's moons has been shown to be a pink moon, which has excited the boffins. Voyager has detected also new moons around Neptune. However, Triton was found to be orbiting in the opposite direction to the rest. Neptune, later was found to be blue in colour with pictures so huge they filled the screens at mission control, and weird weather patterns, one of which was called 'The Scooter'.

Astronomer Patrick Moore said: "I feel sad, this is the end of an era, its done its job, we won't get any more pictures of Neptune in our time like this, and its going away never to be seen or heard from again

CNK will cover this report in full soon. Cover: Neptune's moon Triton.

NAME CHANGE

This journal is contemplating a change of name, to the simple-yet-succinct title 'COSMOLOGY'. Single titles like SCIENCE, ASTRONOMY and SPACEFLIGHT sound more impressive than long mouthfuls. Since there exists no similar title, we would like to hear from our rearders what they think of this idea. Our aims, contents and staff remain the same. Contributions welcomed.

EDITOR.

COSMOLOGY NEWSLINK WISHES TO THANK THE FOLLOWING FOR THEIR MATERIAL:
Jason Fagan, Walter Andrus, Jerome Clarke, International UFO Reporter, Jenny Randles, Brian Smith, Stephanie Wales, Gretchen Stillwell, Zara Jensen, Thomas Verney, The late Fred Sculthorp, Leilah Wendell, Gene Duplantier, Novosti Press Service (Ralph Gibson), Trisha Donoehue, Allen Hynek Center For UFO Studies, Julie Fuller and Stanley Greenwood.

COSMIC DEBRIS by Gene Duplantier

A REMOTE CONTROL Canadarm, developed by Spar Aerospace in Toronto, Canada, will try to pull in an errant 10-ton satellite with the robot arm on the space shuttle to be launched on Dec. 18, 1989. The shuttle Columbia, will have a crew of five. The satellite is being pushed by solar pressure and pulled by Earth's gravity to a predicted crash through the atmosphere next January! If the satellite is not recovered from its decaying orbit, experts say as many as 100 one-pound chunks of debris could survive re-entry and possibly hurt people. The satellite mainly passes over water but also goes over South America, Africa, India, Asia and Australia.

COMMEMORATING THE 20TH ANNIVERSARY of the first moon walk, Pres. George Bush committed the U.S. to building a manned outpost on the moon and sending astronauts to Mars. Vice pres. Dan Quayle said the Administration was moving toward "another great leap forward in space".

RADIO TELESCOPES let astronomers study deep space by analyzing radio waves. Older telescopes were able to discover the rapidly pulsating source in the Crab Nebula. The mystery of pulsars was solved this way, which are now known to be rapidly spinning neutron stars that emit powerful radio waves.

ANNY, A MECHANICAL MAN is the most human-looking and human-acting robot in existence today. It was created by a private firm, Battelle Pacific Northwest Laboratories in Washington State, U.S.A. It walks, talks, breathes and perspires and its body temperature is a normal human's -- 98.6 degrees F. Anny will be used to test protective clothing for soldiers.

LARGE ASTEROID composed of rock and dust half-a-mile or more in diameter, crossed Earth's orbit at a distance about twice that between the Earth and the moon last March 23. Henry Holt, astrogeologist at Northern Arizona University who discovered it, said that, sooner or later, it should collide with the Earth, the moon, or Mars." It orbits the sun once a year on an elliptical path that brings it back to Earth regularly.

NINE BROWN DWARFS which may be lumps of gas more massive than planets have been found by astronomers at the Univ. of Rochester in New York State. According to theory, these are lumps of gas in the universe that failed to become stars because they did not ignite the internal nuclear reaction that makes the stars shine. The dwarf stars were found in the constellation of Taurus where young stars can be seen in gas clouds more than 450 lightyears from Earth.

ASTRONOMER IAN HALLIDAY from Ottawa, Canada, has had an asteroid named after him. Halliday, who is 60, works for the Herzberg Institute of the National Research Council and was honored for his more than 30 years in the field. The asteroid is about 12 miles in diameter and is situated between Mars and Jupiter. Halliday established a camera network that tracks the orbits of 360 asteroids for the past 15 years. He also recovered a large hunk of a meteorite that crashed near Innisfree, Alberta, Canada.

FREEDOM a \$26 billion orbiting laboratory, could be launched as early as 1996 by the space shuttle for NASA.

TELESAT CANADA of Ottawa, Canada, is looking for a builder for their first satellite so it can launch North America's first satellite-based mobile telephone system. It would service communications to and from mobile vehicles in the air, on the ground or on water. Radio signals would bounce off the satellite instead of present-day earth based repeaters.

THE PLANET PLUTO is indeed a planet and not an asteroid or a fugitive satellite that escaped Neptune's gravitational pull. Wm. McKinnon, associate professor of earth and planetary science at Washington Univ. in St. Louis, Missouri, said that their work shows Pluto was formed independently in the outer space system. Pluto is accompanied by a moon, Charon.

NASA HAS AGREED to help pick a landing site on Mars for a robot craft that the Soviets will launch in 1994. They hope to have the spacecraft orbit Mars, drop a lander which will scoop up soil and return it to Earth.

LISTENING POST for signs of intelligent life in the universe by reactivating the Jansky Park Radio Observatory in Ontario, Canada, is the object of the Canada Research Council's desire to have NASA include it in their \$90-million U.S. SETI program. It would cost \$4-million for automated and computerized receivers to analyze radio signals that might come from other civilizations.

THE VOYAGER 2 space probe has discovered a third moon of Neptune. It is about one-fifth the size of Earth's moon. It was discovered by JPL astronomer, Stephen P. Synnott. Researchers expect to find as many as 10 moons of Neptune. "Most of the outer planets have a lot of moons, said Voyager project manager, Norman Haynes of JPL.

VOYAGER 2 revealed the existence of a 6,200-mile-wide "dark spot" on Neptune similar to the giant red spot on Jupiter and believed to be caused by a giant storm. Photographs also showed 2,700-mile-wide dark bands, thought to be windblown clouds, near the poles similar to those seen on other gaseous planets.

EVIDENCE OF LAKES ON VENUS collected during the Pioneer-Venus probe suggests the early solar system contained planets with an abundant water supply, a necessary condition for life. Examination of Martian soils shows canals and deep rivers once covered the planet. Large storms on Jupiter during the Voyager flyby indicate a natural laboratory for chemical evolution, said scientist Prof. Carl Sagan of the Univ. of Houston, Texas.

MISSING STARS may hide giant planets - super Jupiters - recently discovered by Canadian and U.S. astronomers. Estimates of the number of worlds in our Milky Way galaxy that could support life have ranged between one billion and one million. Astronomer Carl Sagan said the new evidence fits a pattern in which about half of star systems with only one star (some have two) would have planets. He says that among astronomers, resistance to the abundance of planetary systems is beating a hasty retreat.

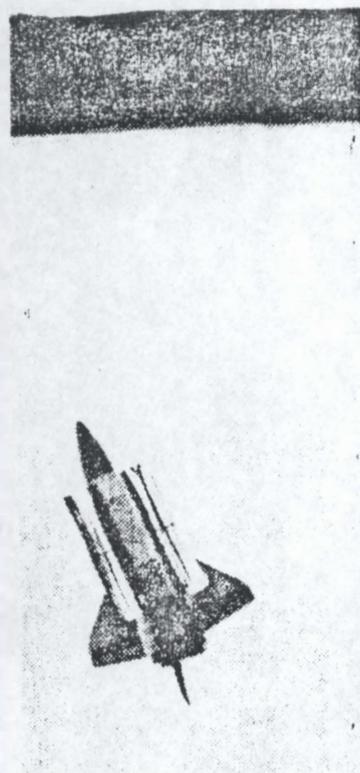
PLANET MARS was closer to Earth in the fall of 1988 than it will again anytime this century.

THE U.S. FEDERAL GOVERNMENT will spend \$75 million to design and build a radio telescope at Green Bank, West Virginia. The new telescope's dish will be 100 meters in diameter and is expected to be completed by 1993. It will be one of the most powerful in the world.

A METEORITE found in the Antarctic, containing large traces of organic carbon and hydrogen-based substances is believed to have been hurled to Earth by volcanic eruptions on Mars thousands of years ago.

APOLLO ASTRONAUTS between 1969 and 1972, carried 373 kilograms of lunar samples back to Earth. About 275 kgs. are in pristine condition in the space center's vaults, awaiting new technologies to probe its ancient secrets.

A 21-MILE-WIDE CRATER hidden beneath the fields of the western state of Iowa, may be the key to what killed the dinosaurs 65 million years ago. The crater, near Manson, is under as much as 300 feet of rock debris left by glaciers. Rocks in the crater and elsewhere show unmistakable signs of being damaged by an impact. The collision would have darkened the sky for months, caused heavy acid rain, raised Earth's temperature by 20 degrees and caused the extinction of many varieties of plants and animals.



HUMAN INTELLIGENCE INCREASE:

Source: Unknown

The Last
4,000
Years

AND

The
Next
40 Years

By ROBERT ANTON WILSON

We can expect more changes in human life during the next 40 years than occurred in the previous 4,000 years.

This is a perfectly safe, non-Utopian prediction because of a little-understood factor in human life which I call the I^2 function. I^2 stands for several things simultaneously—Intelligence Intensification and Information Increase, for instance. I^2 can also mean ego^2 —that is, the mutation and dilation of our self-images as we are continually transformed by the techno-social forces that have been mutating us for the past several millenniums.

Before discussing the accelerated metamorphoses of the next 40 years, let us review briefly how the I^2 function has been progressively discovered.

Just before the American and French revolutions of 1776 and 1788, several philosophers began to propose that there was no limit to "progress"—that there was nothing in human life that couldn't be changed and improved indefinitely. Condorcet, the mathematician, expressed this idea most pointedly of all, daring to speak of "*the infinite perfectibility of mankind*." Such ideas played a large role in unleashing both of the revolutions mentioned, and the Mexican revolution of 1810, and a great deal of subsequent radicalism.

Of course, Condorcet and the other 18th

century radicals were a bit *too* optimistic; they all tended to think that there would be no hindrance to perpetual progress once monarchy had been replaced by democracy and the Pope had been prevented from interfering with scientific enquiry. Things were not quite that simple, and most of the Utopian thought of the 19th century—including that of Karl Marx, whose passionate desire for justice combined with his intolerant authoritarianism unleashed the Communist movement—was based on attempts to produce "Instant Progress" by giving the State the power to, as it were, *force* everybody to be happy. This hasn't worked very well.

In the 1890s, however, two brothers who happened to be the grandsons of one American president and the great-grandsons of another, namely Brooks and Henry Adams, began to see the laws of social change a bit more clearly. They proposed what Henry called *the Law of Acceleration*.² This alleged law, which is not quite accurate, claims that change is not caused by politics or revolutions, which are only symptoms; change, the Adamses said, is caused by economic-technological factors within society itself. And, guessing wildly, Henry Adams proposed that change occurs at a rate which is the inverse square of time.

Specifically, Henry assumed a 90,000-year interval from the dawn of Homo Erectus (anthropology was just beginning then) to the Scientific Revolution of Galileo, Bacon, etc. circa 1600. He assumed further that the next jump had been completed circa 1900, with

quantum theory, the discovery of radium, the Wright Brothers, etc. Now, 300 is the square root of 90,000, so Henry Adams assumed the next jump would be completed in $\sqrt{300}$ years—that is, in roughly 22½ years, or around June 1922.

Things are not (or were not) moving quite that fast.

But, while Henry was indulging in wild mathematics, brother Brooks had hit on something even more interesting. He noted that the accumulation of capital—that is, the center of economic power in the world—had been moving steadily westward for several thousand years. It had moved, he noted, from Babylon to Greece, from Greece to Rome and thence to Renaissance Italian city-states, upward but still westward to Germany and then England, and was hovering when he wrote between London and New York. He predicted that it would shift to New York, which has indeed happened.

(Is it about to rebound eastward suddenly, due to the emerging Arab oil-states? We will see reasons to doubt that as we proceed.)

In 1918, a military engineer, Major C. H. Douglas, who evidently had not read Brooks and Henry Adams but sounds as if he had, carried their kind of thinking a step further. The major factor in social change, Douglas said, was the *increment of association*, which creates a *cultural heritage*.

The increment of association simply means that when you've got more people organized together, you can accomplish more work;

R. Buckminster Fuller defined the I^2 function as *synergy*—the kind of reaction where $1 + 1$ does not equal 2, but $2 +$. For instance, put a man and a woman in bed and you might get, in nine months, three people, not two. Fuller realized that the highest form of synergy was mind itself, which is, as he says, inherently self-augmenting.

something Adam Smith had already noticed in 1776. But Douglas saw this more dynamically than Smith had. The increment of association increases from generation to generation, he noted, because of cultural heritage—the passing-on of knowledge, gimmicks, devices, tools, ideas, etc.

Obviously, a tribal society could not build the Parthenon, even if an architect of genius were born among them. The increment of association and the cultural heritage were not there. Similarly, a Renaissance city-state, even with Leonardo da Vinci in charge, could not put Neil Armstrong on the Moon. From trajectories like these, Douglas calculated that the movement of capital, noted by Brooks Adams, followed the movement of ideas—of both *hard* and *soft* technology. And, since our stockpile of ideas is increasing from generation to generation, change is indeed accelerating, although not quite according to Henry Adams' inverse square "law."

Douglas also noted that capital itself was increasing—a radical idea at the time, and disputed by both socialists and Free Market economists. We now know that Douglas was right, and economists of all schools agree that capital is increasing at around two percent per year (which means that world capital doubles about every 25 years.)

A few years after Douglas, in 1921, Count Alfred Korzybski, another engineer, defined the I^2 function in his own way, calling it *time-binding*. Time-binding is the mechanism of the cultural heritage, Korzybski says, and it is based on our capacity to generate more and

more inclusive kinds of symbolism. As we advanced, he says, we moved from grunts and howls, like other primates, to articulate human speech, to written language, to math and graphs and calendars, to scientific laws; and now to computer simulations and electronic world-wide information systems. At each step, we learn more about how to model the universe, and how to predict what will work and what will fail.

The time-binding function, Korzybski calculated, operated roughly like a geometrical progression:

2 4 8 16 32 64

This seems to be a much closer approximation of the truth than Henry Adams' inverse-square guesstimate. Dr. O. R. Bontrager has collected scores of graphs of the rate of change in various fields of technology, and they all approximate to the graph of Korzybski's simple geometrical progression.

Although this is not as shocking, at first sight, as Adams' guess, it is equally startling when you look at it for a while. For instance, continuing the 2-4-8 series five more steps beyond the sixth term, 64, where we left off, we find ourselves suddenly at 2048; and going five steps further, at 63,536...

We now know that some things are moving even faster. For instance, J. R. Platt of Michigan State University has calculated that speed of travel increased 1,000-fold since 1900 and speed of communication 10,000,000-fold. One man flew the Atlantic in 1928, but 200,000,000 men, women and children flew the Atlantic in 1978, 50 years later.

In 1928, when that lone man, Charles Lindberg, was flying the Atlantic in his crude bi-plane, engineer-designer R. Buckminster Fuller, who had read Korzybski, defined the I^2 function as *synergy*. Synergy is the kind of reaction where $1 + 1$ does not equal 2, but $2 +$. For instance, put a man and a woman in bed and you might get, in nine months, three people, not two. Add molybdenum to steel and you get an alloy tougher than either or both. Bring Arabian mathematics to Europe, mix it with the empirical knowledge of the craftsmen, and you get Galileo and the science of physics.

Fuller realized that the highest form of synergy was mind itself, which is, as he says, inherently self-augmenting. That is, you can't put two ideas together without a third idea emerging, almost as in our sexual example above. Fuller agrees with Douglas: capital increases, because ideas are always increasing. The world is moving toward larger and larger coherently organized systems, each capable of doing more, synergetically, than earlier, less organized systems.

In 1944, Nobel physicist Erwin Schrödinger added the next block to the definition of I^2 in a book called *What Is Life?* Schrödinger noted that everything in the universe, *except life*, follows the Second Law of Thermodynamics in moving steadily toward maximum entropy (which for our purposes we can define loosely as chaos or incoherence.) Life, however, moves in the opposite direction: toward higher organization, greater coherence, *negative entropy*.

In the next few years, almost simultaneously, Claude Shannon of Bell Laboratories and Norbert Wiener of M.I.T. realized that the information in a message could be mathematically expressed as negative entropy. The whole science of cybernetics comes out of this discovery, but that is not our topic here. What is interesting to us, in terms of I^2 , is that the momentum of life toward greater coherence is, as Shannon and Wiener noted, vastly accelerated as life's techniques of information-processing improve. In short, the movement from grunts to language, to math, to computers, is a movement toward Information Intensification and against entropy, a movement toward coherent order and against random decay.

As Bucky Fuller was quick to point out, the development of Information Theory by Shannon and Wiener enables us to see the human mind as the greatest synergy-machine, the greatest tool for doing-more-with-less, in this part of the universe.

Fuller points out that knowledge can only increase (except for tragedies like brain damage in an individual or totalitarianism in a society). As our communication skills and information processing improve, human knowledge as a whole accelerates synergetically. Therefore, both hard and soft technology accelerate—ideas and tools both change faster, faster, faster. And capital accumulates accordingly.

The ever-provocative Dr. Timothy Leary gives us a final set of models to understand the law of acceleration. In *The Intelligence Agents*, 1979, Leary claims the east-to-west movement, seen as a migration of capital by Brooks Adams, is really a movement of genes. The Earth turns west-to-east; the harder, more innovative genes, he claims, go against this and move east-to-west. The shift of power from Babylon to New York noted by Brook Adams is still continuing, Leary avers; the pioneer genes are piling up on the West Coast, *and getting ready to blast off for space*.

This oddly parallels the theory of sociologist Carl Oglesby that there is a cowboy-versus-yankee war in our ruling class. The cowboys are still looking for a new frontier, Oglesby says; the Yankees have turned conservative. Control of our economy is split between the old New York capitalists and the innovative Western cowboy-capitalists. The latter group, of course, are the ones who are heavily investing in the space industry.

There is clear relevance between all these notions, and they all contribute to our understanding of socio-economic change. The Adamses on migration and acceleration, Douglas on increment-of-association, Korzybski on "time binding," Fuller on synergy, Schrödinger on life as an anti entropic process, Shannon and Wiener on information as negative entropy, and Leary on neuro-genetics, all illustrate part of what we mean by Information Increase. That Intelligence Intensification (a term borrowed from Leary) is part of the worldround 4,000-year information explosion should also be clear. Our hunting-gathering ancestors did not need the vari-

ety of *kinds* and *styles* of intelligence that the Greeks of Plato's age needed. More intelligence, of different flavors and functions, were necessary for the transformations known to us as the Renaissance, the Industrial Revolution, the rise of representational government. New types of intelligence are being produced to cope with the computer revolution and the burst into space.

The other aspect of I²—the continuous mutation of the ego—is more subtle. Tribal people only know themselves and define themselves as units within the tribe, just as they only know the universe as a few miles, or a few hundred miles, with a sky over it. Urbanization and civilization created a domesticated human ego, more self-direction, and a quality of alienation or *anomie* resultant from the loss of the tribal bond (extended family). The Renaissance created the modern individual, questing, impatient, monstrously "selfish" by the standards of traditional societies, seeking personal and impersonal goals unthinkable earlier in evolution. In this century, and especially since 1945, a new ego, a new social self-definition, is emerging, amid the usual chaos and anxiety that attend any major transformation.

We are less like our grandparents than they were like the first food-gathering hominids. Every time you turn on the TV, you participate in a miracle that is transforming you more than you know. It doesn't matter what's on the tube; as McLuhan said, *the medium is the message*—to a great extent anyway. The very fact that the tube can bring you live pictures from the other side of the planet causes you to know yourself in a different way than any previous generation. You intuitively have a different sense of who you are, where you are, what you are and why you are.

This neurological shockwave, which has been rising and accelerating for 4,000 years, is not going to stop or decelerate in the next 40.

Life will continue to be I-opening in every sense.

The computer revolution will mutate us far more than TV, and much faster. Here's an example of time-scale: when I entered high school, in 1946, there were virtually no TVs in private homes in the U.S.; by the time I finished high school in 1950 almost everybody had a TV. All the signs are that home computers are going to sweep the country in the next four years the way TV did in my high school days.

The computer is a seductive beast. Everybody—even people who think they hate technology—gets hooked after a few hours of sitting at the console and playing around with this marvelous toy. Children seem to turn on to it even faster, and jump quicker from simple to sophisticated programming. Thus, the proliferation of home computers in the 1980s is going to be a tremendous quantum jump in all dimensions of I²—intelligence intensification, information increase and a new sense of who and what we are.

You can't play with computers for long without beginning to sense that *intelligence is the capacity to receive, integrate and transmit*

signals. You begin to see your own nervous system as a marvelous computer in itself, and you want to expand and accelerate its workings. You want it to *receive* more signals, *integrate* them into better simulations or models of the world, *transmit* them more efficiently. Intelligence Increase begins to seem as hedonic as the quest for conscious-expansion in the '60s.

You begin to understand McLuhan's paradoxical claim that the medium is the message. The ideas in this article—especially the Schrödinger-Fuller concept of evolution as a struggle for better information and less entropy—begin to make sense intuitively and sensorily. Your nervous system is expanding by interfacing with the computer, which in turn will more and more be interfacing with other computers on Earth and in space.

Meanwhile, of course, none of our present "problems" are going to go away overnight. Third World liberation, Black liberation, Women's liberation, etc. will continue to demand attention and solution. Terrorism will be with us for a while yet—as long as there are people in the world who think that a small group of white males in the Western world have too much power and use and abuse that power without empathy for the needs and aspirations of others.

There is no need to build doomsday scenarios about this worldwide struggle to decentralize wealth and power. The first axiom of the I¹ hypothesis is that if a problem exists, a solution must also exist. The evolutionary function of problems is not to lead us to throw up our hands and cry out that the species is doomed, but to provoke us to think of solutions.

Sometime in the next 15 years, between 1980 and 1995, the first longevity pills will be appearing. This is only a guess, of course—the time factor cannot be estimated, really—but there are more scientists working on life extension today than there were working on atomic energy in the 1930s, before Einstein wrote his famous letter to President Roosevelt about German research in nuclear weaponry. As soon as any country gets a strong hint that some other country might have an anti-aging formula, or might be close, such research will spurt ahead dramatically.

(Some of the longevity pills currently used by faddists—especially Vitamin E, megadoses of Vitamin C, and RNA—may already be some slight help in extending lifespan, although the evidence is not conclusive yet.)

Several researchers have already reported extension of lifespan in experimental animals.

There have been several articles on this subject in popular magazines lately, and a rash of books such as *Prolongevity* (Rosenfeld), *The Life Extension Revolution* (Kent), *The Immortalist* (Harrington), *The Immortality Factor* (Segeber), etc. The avant-garde 10 percent of the population is already looking forward to the conquest of aging and the eventual conquest of death. When this message reaches 30 percent of the population, both government and private industry can be expected to invest in this research much more

Anti-aging drugs and life-extension techniques will soon deliver us from the curse of death, and within the next 40 years we will all be re-oriented to living centuries, not decades, and to pursuing the scientific quest for actual immortality. We have to expect such quantum leaps every decade now.

than at present. Assuming that the first breakthrough, however crude, will occur between now and 1995 is reasonable. Even if the first life extension drug only increases lifespan 10 or 15 percent the psychological impact will be immense. Expectations will rise, and research will accelerate even faster.

Far-out sociologist F. M. Esfandiary may not be excessive in claiming, "If you can survive the next 20 years, you will probably never die."

The Age of Space, of course, has already begun. Over 100 men and women have been into space; our TV brings us satellite photos every night on the weather forecasts, and has brought us pictures of Mars and Jupiter. As home computers linked up with satellites in space become more common, the sense will grow in all of us that we are participating in the Space Age even if we are staying at home. But the longevity revolution will certainly increase the "population problem" in everybody's awareness, so that migration into space will seem more and more necessary.

Since we already have communication satellites in plenty, the solar power satellites urged by California's allegedly "flakey" Governor Brown cannot be far away. After all, ground-level solar power collectors can only tap the sun's energy half a day at best, and not at all on cloudy, rainy or overcast days. Yet a solar satellite can collect energy 24 hours a day, every day of the year. Even with anti-tech bias in some circles these days, an idea like that cannot be long ignored.

Dr. Barry Commoner, one of the leading

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experts on ecology, pointed out at the 1980 meeting of the American Association for the Advancement of Science that, even before some kind of ecological disaster hits the planet, we will be in serious economic trouble, if we continue to base our economy chiefly on non-renewable resources such as oil and coal. It is a simple fact of economics that as a resource grows scarcer, its price goes up. (Looked at your gasoline bill lately?) If energy is not to become something only the rich can afford, Dr. Commoner says, we must switch to renewable resources pretty damned quick.

Solar power is the most abundantly available of all renewable resources, and satellites are the best way to tap a lot of it.

But such solar satellites are just the first step in our expansion into extra-terrestrial economy.

Engineer G. Harry Stine has calculated that there are 10^{100} technical processes that can be performed cheaper or more efficiently in space than on the surface of a planet. This is an example of doing-more-with-less that might make even Bucky Fuller blink, but it is simple physics, based on the zero-gravity conditions and high-grade vacuum available in space.

In case anybody doesn't know, 10^{100} means 10 with a hundred zeroes after it. This is quite a large number (says he with English understatement) and makes the Industrial Revolution look like a tempest in a teapot by comparison. It seems to mean that, as industry moves into space, the rate of capital increase

will accelerate much faster than the two percent per year that has prevailed since the late 19th century. In fact, it indicates that we are about to experience the greatest quantum jump in energy, resources and wealth since history began.

The word "we" in the above sentence is, of course, ambiguous. In guessing how much the Great Economic Boom of space industrialization means to the human race generally, rather than just to the multinational corporations, keep in mind: (a) The Third World liberation movements and other poor people's crusades are *not* going to go away. (b) Even under our present system of monopoly capitalism, living standards have steadily risen for the majority. (That is, contrary to Marx, capitalism has not meant that the rich always get richer and the poor always get poorer; rather, the rich continue to get richer, but fewer and fewer are poor in the 19th century sense. Our unemployed poor, on Welfare, are far more comfortable and healthier than the working poor in Marx's day.) (c) As the information-intelligence revolution continues, the deprived will find better, more rational ways to press their demand for a fair share of the pie. That is, it is easy to ignore, or refuse concessions to, a band of crazy terrorists; it is not easy to ignore a group of people as well organized as American labor today.

Bucky Fuller and Werner Erhard have picked 1995 as a target date for the abolition of starvation worldwide. This may sound hopelessly Utopian now—but that is only because we are so accustomed to stupidity and narrow greed in high places. Making every allowance for that factor of human cussedness, it seems reasonable to say that the Fuller-Erhard goal must be achieved in the 40-year span this article is considering. And there is no reason why we shouldn't aim for 1995; as any karate teacher will tell you, success depends on aiming at *more than* you think you can achieve.

And here's where the much-maligned Human Potential Movement comes into the picture. This was not invented in the 1970s, as shallow critics believe, but in the 1950s. It emerged from the interpersonal emphasis of psychologists like Harry Stack Sullivan, who realized that a "sick" person is just one part of a "sick" situation; and from the rising popularity of group therapy, replacing the old individual therapy; and especially from Dr. Abraham Maslow's discovery that healthy people are more interesting than sick people—i.e. that health is what psychologists really ought to study.

Freud studied the neurotic, and tried to restore them to normalcy, without a very clear idea of what normalcy was. Maslow studied the conspicuously healthy—the persons he called "self-actualizing individuals"—and found they were as far from the norm as the mentally ill are. Due to Maslow, psychologists began to realize that the normal state is rather dull and stupid. Emphasis shifted from treating the ill to "make them normal" into treating both the ill and the normal to make them self-actualizing, i.e. to show them how

to achieve their full potential.

Although there are now several branches or schools of the Human Potential movement, with several varieties of jargon and "psychobabble," the best summary of what the whole Consciousness Revolution is all about is, I think, that given by Dr. Leary in the previously mentioned *Intelligence Agents*.

As Leary states the case, there are eight varieties of consciousness-intelligence which we all potentially possess and which we can all develop to a higher general level than the present norm. These are:

Bio-survival intelligence. Using your body to avoid danger efficiently, as any intelligent animal does. We only learn this kind of consciousness if our major interest is sports of the more violent sort, like football. We can all learn more through martial arts such as kung fu, karate, akido etc.

Emotional intelligence. Using the emotional circuits in your brain to understand other people's emotions, "where they're coming from," and how to relate to them when they seem irrational. In our society, only women seem to be trained in this kind of consciousness, and men are generally clumsy as oafs. Women's Liberation and the growing influence of Human Potential has made the *avant* third of the male population more or less aware of this, and the attempt to become more "sensitive" to others has at least begun. We can only expect it to increase (and the sooner the better).

Semantic intelligence. The ability to use words and other symbols without committing gross errors of judgement. This is the only type of intelligence which our schools even *attempt* to teach, and since we live in a deluge of words, symbols and other signals—and since the computer revolution is upon us—we all need to learn how to receive, integrate and transmit symbols more efficiently.

Socio-sexual intelligence. The capacity to relate to others without being exploitative and without being an exploiter. Our society traditionally treats sex as a special case, but it is really part of the whole social consciousness game. The rules are the same, in sex or in other relations between people: treat the other person as you want to be treated. At present, few have that degree of maturity, and most are either bullies or masochists. A great deal of therapy, group or otherwise, merely consists of teaching people a modicum of socio-sexual consciousness, so they can cease to be bullies or masochists.

Neurosomatic intelligence. The ability to stay "high," to look and feel like a happy, healthy young adult all your life. This is somewhat "spookier" than the previous kinds of consciousness, but only because it is still statistically rare. When somebody else transmits this to you, it called "Christian Science" or "faith-healing," etc. Maslow found that his self-actualizing people do it for themselves, without a guru. However arcane it may seem at present, this type of intelligence is increasing because weed has made *temporary* flashes of it familiar to about a third of the population, because biofeedback is showing us how to control it scientifically, and because

the Human Potential movement, and such exotic imports as Zen and yoga, are making it accessible to more people every year.

Metaprogramming intelligence. The capacity of the brain to become aware of its own programming, and to rewire itself for more pleasurable, more efficient, more successful programs. This is the goal of all the more advanced forms of psychotherapy and the Eastern mystic traditions. It means turning all your mechanical reflexes into voluntary choices—ceasing to be a robot and developing your full Human Potential—and it is still exceedingly uncommon. The whole Aquarian philosophy, of course, is based on the hope that this transformation of humanity from Mechanical Reactions to Creative Actions can be accelerated by the growing synthesis of Eastern and Western psychologies, by new discoveries in the neuro-sciences, and by the fact that the accelerated changes we are going through demand that our brains themselves accelerate and change.

Leary adds two further kinds of intelligence, which are so infrequent in our society at present that to talk of them at all sounds "mystical." These are *neurogenetic intelligence*—the capacity to intuitively grasp, through direct brain-DNA feedback, the Evolutionary script, the meaning of I', and one's own role in the entire drama of I' emerging out of the primordial slime to higher and higher levels of coherence; and *neuro-atomic intelligence*, which has to do with the weird stuff that some scientists don't even admit exists, such as ESP and psychokinesis.

I think it safe to predict that, within the 40-year span of this article, we will have much more precise scientific knowledge about how to increase all eight of these levels of consciousness. In short, I think we can expect a quantum jump in human functioning, to greater intellectual efficiency, greater emotional sensitivity and stability, and more self-awareness, self-direction and zest-for-living.

Now let us look briefly at some of the other changes and breakthroughs that can be expected in the next 40 years.

Human cloning will be possible. (One sensational book, rejected by most scientists, claims that it has already occurred.) Some of the implications of this are so staggering that they make the wildest science fiction seem tame. One can imagine a dictator cloning a whole army of killer-zombies from some low-IQ high-muscle prototype, or some eccentric Sultan cloning a harem of Sophia Lorens, etc. Dozens of similarly bizarre fantasies will be possible, and one can only accept cloning if one believes that I' is really going to increase also.

More significantly, cloning will complete our sexual reorientation. Contraception has broken the sex = pregnancy "law" by making sex without reproduction possible; cloning will change our attitudes further by making reproduction without sex possible. A whole new definition of humanity, sexuality and sociality will emerge, which we can only dimly foresee.

Cities in space must inevitably follow space

factories. That is, neither male nor female engineers can be expected to put in long stints out there without the heterosexual majority demanding the usual companionship and, eventually, the traditional family structure. Since designs for space cities have existed since 1968, and have been improved several times already, real space cities are inevitable in our 40-year forecast.

People living in space will be as different from Terrans as the first settlers of the U.S. were from traditional Europeans. They will be the pioneer, maverick types—those who, if we trust Brooks Adams and Leary, have been moving westward for the last several years, dragging the rest of humanity in their wake, as they endlessly produce new ideas, new tools, new capital and higher levels of information processing. Since there is nowhere left for them to go on Earth, they will be leading the migration into space.

Or consider the following Utopian visions:
—Drugs to permanently increase intelligence;
—Artificial sight for the blind;
—A cure for cancer.

Does it seem visionary to predict these within the next 40 years? A poll of scientists conducted by McGraw-Hill in 1977 found that the majority of informed researchers believe we will have all three within the *next 20 years*.

In fact, since these predictions were made in 1977, we have already seen the development of one type of very limited, very expensive artificial sight for the blind, in laboratory prototype only; and it has been discovered that one known drug, lecithin, can raise intelligence to a limited degree.

One psychiatrist, Dr. Robert Newport, has predicted that, within 15 years, psychotherapists will be mainly diagnosticians. That is, they will merely decide what is wrong with a given patient and then prescribe the right chemicals to restore the brain to equilibrium. This was perhaps uttered with some whimsy—but Freud himself predicted that such chemotherapy would make his work obsolete someday.

Dr. Nathan Kline has claimed that, by 2000, we will have such specific chemical brain-change agents as: drugs to increase or decrease mothering behavior, drugs to improve memory or to remove specific memories, drugs to prolong or shorten childhood or any other stage of life, etc.

It is hardly visionary, then, to project that, within our 40-year purview, we will all be able to program our nervous systems to add, subtract or multiply any behavior we wish to alter.

We have traditionally been limited and tormented by three factors which theology calls "the world, the flesh and the devil." As the French philosopher Bernal pointed out, in modern terms, the world means the limited resources of this planet, over which we have been fighting for the past several thousand years. Space migration means that we are no longer hemmed in by this limitation. We are moving from the closed system of Terra to the open system of extraterrestrial expansion.

The flesh, to Bernal, meant the brevity of

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human life—the grim fact that for most of us, senility, the other diseases of age, and death itself come upon us before we have begun to figure out what life is all about. Anti-aging drugs and other life-extension techniques will soon deliver us from that curse, and within the next 40 years we will all be re-oriented to living centuries, not decades, and to pursuing the scientific quest for actual immortality.

The devil, of course, merely represents our own inner irrationality. All that we have said about intelligence increase and consciousness expansion indicates that we are on the threshold of major victories against the most pernicious of the three traps that have previously constrained us.

That is, the world represents limits in space which we are outgrowing, the flesh represents limits in life-time which we are also outgrowing, and the devil represents limits in our own consciousness which we can also outgrow. We are evolving into an entirely new relationship to space, time and mind. The law of acceleration, increment of association, synergy, etc. are all aspects of the single fact that intelligence has been increasing more rapidly since life began. At first, major changes came only in billions of years, then in millions, then in thousands. After the scientific revolution circa 1600, we began to get used to rapid jumps every century. Some of us are now growing accustomed to rapid quantum leaps to higher coherence every generation.

We have to expect such leaps every decade now, to understand what the next 40 years will really be like.

REDS SEE LITTLE GREEN MEN -OFFICIALSKI

DAILY STAR, Tuesday, October 10, 1989

visit from outer space say Reds

They're 12ft tall with tiny heads

City in terror as spaceship lands in park

By PATRICK HENNESSY and SHAN LANCASTER

RUSSIA has been invaded by aliens from outer space... but they aren't such Little Green Men anymore.

They have now grown into 12ft giants, according to terrified witnesses who said they saw them land in a city park.

Warning

They said the weird space travellers, who had tiny heads, went for a stroll in the park before disappearing inside their spacecraft again.

And after flying off, they left behind rocks of a substance not found on Earth.

Scoffers who reckon it's all a flight of fancy are put in their place by the Reds who say the landing is OFFICIAL.

The news agency Tass, which speaks for the Soviet government, said yesterday that the landing had been **CONFIRMED** by Russian scientists.

Tass said a large shining ball or disc was seen hovering over the park at Voronezh, 300 miles south east of Moscow.

The news agency, which did not give the date of the landing, said onlookers were "overwhelmed with a fear that lasted for several days."

Genrikh Silanov, head of the Voronezh Geophysical Laboratory, said scientists found a 60ft wide depression with four deep dents as well as two unidentified rocks.

Silanov said: "At first glance, they looked like sandstone of a deep-red colour. But tests have shown that the substance



The Aliens... as seen by The Sun

● THEY'VE landed — and it's **OFFICIAL**. An alien spaceship manned by giants with tiny heads has beamed down in Russia, the Soviet news agency Tass said yesterday.

● Hundreds of terrified people saw the UFO — a large shining ball — hovering overhead. It landed in a park in the city of Voronezh 300 miles south-east of Moscow.

● Then three creatures about nine feet tall and similar to humans emerged with a small robot for a walk.

● Scientists later found a 20-yard wide depression and rocks that were like none found anywhere on Earth.



cannot be found on Earth."

Last summer a Soviet newspaper reported a close encounter between a milkmaid and an alien in Central Russia's Perm region.

She described him as "taller than average with short legs and only a small knob instead of a head."

MYSTERY UFO OVER ESSEX, 26 Oct.

St. Lawrence bay, near Bradwell on sea residents saw a brightly lit UFO fly over village.

It was large, silent, with a cluster of lights (red), at the front & rear and one in its centre. It was followed by a single red light, a distance behind. The object was reported to Maldon Police.

What your unborn baby knows

Inside the womb, your unborn baby can kick in time to music, learn a few words and recognise your voice. He even knows when you're thinking of having a cigarette!

THEY'RE VERY TICKLISH

Source unknown:

During the fifth and sixth months of pregnancy, your baby responds physically to being touched as if it was much older. In special tests it has been shown the foetus can frown and pull faces from 4 months. If the eyelids are gently touched, it will squint and if the lips are stroked the baby will start sucking furiously. He'll jerk his head away if his scalp is tickled from 5 months. And he hates cold water. When it's injected into his mum's tum, he'll signal "Stop it" with some violent kicking.

THEY HAVE A SWEET TOOTH

Just a shot of saccharin added to his bland diet of amniotic fluid doubles his swallowing rate. But foul-tasting iodine will not only slow down his swallowing rate, it will make him grimace.

THEY'RE FRIGHTENED WHEN YOU ROW

A bad, rowing relationship between his parents can have a far worse effect on an unborn baby than the mother's illness, smoking or drinking. Some doctors even claim the foetus is so ultra-sensitive that bad vibes cause an early and spontaneous abortion. The sudden, short-lived upsets like losing your door keys or getting a parking ticket, won't harm your unborn baby but the drawn-out nervous tension of a bad relationship and repeated arguments can. They release hormones like adrenalin into the mother's bloodstream, inhibiting the baby's growth and mental development, explains Dr Dennis Stott. An unborn child can hear rows. He won't understand the words, but he gets the message OK. In a test, one loud-mouthed but sceptical husband was asked to bellow close to his wife's stomach. Half a second later, a tiny, angry foot bulged its reply!

YOUR UNBORN BABY CAN REMEMBER A GOOD TUNE

But he can't stand rock music and Beethoven gets him worked up—so play him soothing Vivaldi. His hearing is more acute than you'd guess! At only 20 weeks, he'll turn in response to familiar speech patterns and, at 25 weeks, he'll jump in rhythm with a drumbeat and, soon after that, kick in time to music. Even more incredible, he can learn a tune in the womb and recognise it years later. Violinist Yehudi Menuhin and cellist/conductor Boris Brott are among the famous musicians who have. "I'd conduct something I didn't know for the first time and, suddenly, the cello part would jump out at me," says Brott. His mother, it turned out, had played records of those very same pieces over and over again throughout the time she was pregnant.

THEY HATE POKING FINGERS

Your unborn child has a whole range of head, arm and leg movements to express likes and dislikes. If someone gives your stomach a sharp prod, your unborn baby will speedily squirm away from the direction of the finger. And this happens at just 2½ months!

THEY WINCE WHEN YOU REACH FOR A CIGARETTE

Everyone knows that smoking when you're pregnant is so bad for your unborn baby's health and can do physical harm to him. But he dislikes your habit so much that his heart will begin pounding with anxiety just

when you're thinking of lighting up. That's because every time you inhale nicotine, your baby's oxygen supply is cut back. He gets to dread the cramps this gives him. And gradually, he learns when his mother is dying for a cigarette just from her hormone changes and his heart races in fear.

THEY MIMIC YOUR NIGHT-TIME ROUTINE

Toss and turn in bed with cramp and indigestion or go to the loo umpteen times and you'll give birth to a night-owl! Your unborn baby is such a follow-my-leader that if you lie down and go to sleep, so will he within minutes. Act agitated and he'll fidget, too.

THEY ENJOY A GOOD CHAT

Lots of mums-to-be have talked to their unborn babies but, until now, there's been no proof it's done more than lift their spirits. Now doctors say that a newborn child will respond to his mum's—and dad's—voice having heard and learned to recognise its distinctive patterns while he was still in the womb! And he finds his mum's gentle talk as comforting as her heartbeat or stomach rumblings. Ignoring him is like leaving someone in solitary for 9 months and can be very emotionally damaging.

THEY CAN MEMORISE A CATCHPHRASE

In parrot-fashion, some babies can "remember" sentences they heard in the womb. One startled mum heard her two-year-old calling out the "Breathe-in-breathe-out" of her antenatal class. She'd never ever used the phrase herself and the family lived in the heart of the country, without even a radio or television! A four-year-old girl startled her adoptive mother by insisting she should not be called Cheryl, but Eileen, the pet name used by her natural mother before her birth. And a French family were delighted but puzzled when their autistic daughter of 4, who could hardly speak, understood English. Her mother however, had worked when pregnant for a firm where only English was spoken!



THEY HATE BRIGHT LIGHTS

Gentle sunbathing sends warm rays through the murky womb and your baby likes diffused light. But shine a bright torch on him from the age 16 weeks onwards, and he'll jump and move away.

STRANGERS IN THE NIGHT

JENNY RANGLES

A motor mechanic, whom we shall call Norman, was filling a truck with fuel at his place of work, a service Station near Blackrod on the M61. It was just after 7.00am on an October morning and the road was as yet still quiet. Glancing upwards to the South he saw a strange silvery sphere, apparently reflecting the rays of the sun as it rose behind the Pennines. He pointed the motionless object out to a colleague and both stopped work for some minutes to watch. But suddenly the air was filled with the roar of aircraft approaching from the north. There were six military jets, clinging to the valley floor and streaking on a parallel course with the motorway straight towards the UFO!

Three jets continued, south towards Bolton, but the others climbed at an angle towards the glittering ball. As they got closer the object began to move skywards at a fast speed and the last the two men saw, both it and the aircraft were tiny dots receding into the distance.

This is a typical UFO story; which like many such cases suffered by not being reported at the time. The witness first had to overcome ridicule, or discover who would be interested, and it took him five years to find us. When investigator Peter Hough from Leigh was assigned to follow it up there was a limited amount he could do. No logs of aircraft movements are kept for very long; and although a few people might have had vague recollections of the unusual formation of military jets nobody had seen the UFO in association with them. This is all too common in the field of UFO investigation and it is very frustrating.

The Ministry Of Defence were contacted about the events. Their response was both unhelpful and ambiguous, as is often the case. They claimed to have "studied the reports of UFO sightings received by the MOD for the period in question "but have been unable to trace anything similar." Actually this is better than the standard reply one might expect, which tends to state that the Ministry have never found the UFO phenomenon to possess "defence implications" and since this is their only brief, "we cannot help you."

Even so it is the Ministry of Defence who are charged with official responsibility of collating government UFO files. In a statement issued to the House of Commons in response to an October 1983 question by Chairman of the Defence Committee Sir Patrick Wall they spoke of having received 2000 cases during the previous four years. Yet, despite the lack of defence implications and their plea about very limited budgets, these defence authorities flatly refuse to either relinquish responsibility for the files or release them in any way to a scientific institute or university.

Inevitably this fuels the suspicion that the government knows a lot more than it is saying. Were those jets in pursuit of a strange intruder that their radar had detected? Is a full report on this affair locked away in a top secret file somewhere? And if so why is the public not considered worthy of knowing the truth?

All these factors must be borne in mind by the investigator of such phenomena. But against this he must balance a significant piece of data. Of the reports he receives from the public fully 90 per cent turn out after investigation not to be UFOs. They are ascribable to aircraft, stars, planets and all manner of things misidentified under various circumstances. The Chances of any specific UFO report actually being a bona-fide UFO are something like 9 to 1 against.

In the Blackrod case it is just possible that the witness observed a weather balloon reflecting the sun, or even the brilliant planet Venus (the "morning star"). The arrival of the jets may have been pure coincidence and from this innocuous beginning a much more amazing event could have built up in the minds of Norman and his co-worker.



This schizophrenic approach to the subject is characteristic of a UFO investigator. He must always assess a case from the probability that it will be a simple mistake made by the percipient, whilst recognising that it just might be evidence for a gigantic conspiracy of alien contact. Coping with these two extremes whilst still seeing things in perspective is never easy.

Whilst most UFO reports are of lights in the night sky it is obviously those which have substance associated with them that prove the most important. Investigators like to call such things either-ors. Either the witness is lying or hallucinating, or is deluded, or else they have seen something which is truly unknown.

Such a case occurred on the night of 13 August 1982 when a couple at Abram, near Wigan, saw a strange cigar-shaped object approach outside their window. Running onto a field behind the house they discovered a neighbour was watching the object's passage too. It drifted silently to the south above a coalmine and looked very large and metallic, with a line of windows or portholes along the edge. From the rear came an orange glow.

This straightforward sighting immediately takes on more importance when compared with an observation two hours later by a group of CB radio enthusiasts on Winter Hill. They spotted a similar UFO move into a quarry and then leave again, heading off to the south. Shortly after this, at 1.10am on the 14th August, a couple at Parr, St. Helens, saw exactly the same sort of object drift past their window. But none of their neighbours saw a thing.

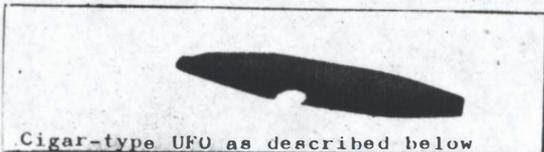
Here we face one of the most baffling aspects of the UFO phenomenon. Three independently located sets of witnesses have all described what looks to be the same object. Yet it certainly fails to behave like a conventional craft. However, were a 'real' unconventional craft such as this be floating around south Lancashire, for hours on end during a summer's night, the number of people who saw it would be staggering. Where are all the missing witnesses? Whilst on paper this looks, and indeed is, an impressive case BECAUSE of its corroboration, it also suffers from the great UFO paradox of too little corroboration.

When case after case containing this paradox continues to collect, the investigator is forced towards the conclusion that here we have a phenomenon which is fundamentally different. It is neither subjective (exclusive to the dreamer - such as a dream) nor objective (seen by everyone, as a flight by Concorde over Wigan would be). Instead it stalks a hazy boundary somewhere in between.

Yet there is a precedence for this remarkable thing in our current understanding of the basis of matter. The new physics of Quantum Mechanics looks like magic to the layman but is a way of life to the modern scientist. He regularly faces up to similar paradoxes; such as the fact that any solid object (such as a table or your hand) is 99 per cent empty space. All things are basically nothing! In many ways the UFO is just as provocative, which may be precisely why we have so much difficulty comprehending it.

The sceptic might still prefer to think that the Abram/Winter Hill/Parr sightings COULD be explained. Perhaps the military authorities were testing some new form of secret airship, for example. This still does not account for the missing thousands of witnesses, or how UFOs can vanish into thin air as they frequently do. And there are too many instances of a UFO creating definite physical effects, which amply demonstrate that it does not involve ordinary tech-

logy (however secret).
 On the night of 8-9 March 1977 Lancashire was literally 'invaded' by such UFOs. Separate reports were made by witnesses all over the northern parts of the county; including a whole coachload at Oswaldtwistle. The reports described things from yellowy lights shining through to one of the most dramatic encounters ever to be recorded on British soil.



Cigar-type UFO as described below

It was 3.00 am and there was no public transport. So, as per an agreement, two night-shift workers at a Nelson Factory had just dropped off a colleague in the dark streets of the town. Suddenly Brian Grimshawe and Jeff Farmer spotted something coming out of cloud above the eerie spectre of Pendle Hill. Coming towards them was a cigar-shaped object, not unlike the latter seen at Abram and Winter Hill. Multiple coloured lights were pouring out of the centre. As the object approached them the engine and lights of their car faded and then cut out altogether. The craft hovered very low above them, like a sentinel watching the sleeping terraced houses. Petrified the men got out into the road and felt a pressure pushing onto their heads and shoulders and a strange tingling in their skins as if they had touched an electrical field. Returning to the safety of the cars' interior they tried desperately to restart the engine without avail. And then, after several long minutes, the object drifted away towards Manchester. When it had travelled a few hundred yards the cars' engine and lights suddenly restarted and the frightened men drove away as fast as they could. Both had severe migraine-like headaches as a reminder of their ordeal.

This may seem like a scene from the movie Close Encounters Of The Third Kind (in fact it is known as an encounter of the second kind). Indeed it ought to. For the storyline in that movie was taken directly from cases such as his, which predate the making of the film.*

Over 500 examples of this type of case are in a computer file recently set up. Some involve motorcycles, aircraft and even ships, but most are what is termed "Car-stops". The one tangible fact to have emerged from the computer so far is that diesel engined vehicles do not suffer impedance. In one case a petrol-engined car next to a diesel truck stalled whilst the truck kept going as a UFO hovered above.

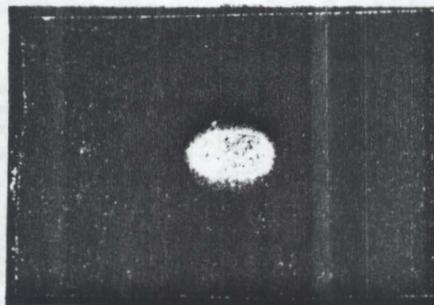
These various effects are all regularly reported in close encounters, and suggest that some type of radiation (in the form of electromagnetic field) is emitted by certain UFOs.

A diesel engine has no spark plug and this seems to be the crucial factor here. But in cases where witnesses have been made severely ill (and even hospitalised) following an encounter studies by the doctors involved have suggested that some sort of microwave energy is responsible.

So what is the truth about UFOs? There is no simple answer. There are indeed many cases of mistaken identity, but the genuine UFO report still amounts to hundreds of reports in every country on earth during each single year. That clearly is a significant challenge. The problems are further compounded because there seem to be several different phenomena which all get reported under the blanket term "UFO".

Some of these are almost certainly rare forms of natural phenomena, such as the very mysterious "ball lightning". This is a spherical mass that can float around and then suddenly discharge by exploding. It has been recorded up to several feet in diameter, lasting several minutes and in clear, sunny skies without a thunderstorm in sight. But nobody knows what causes it. Research has even isolated what are called "earthlights", which are balls of glowing gas in the atmosphere created by energy

squeezed out of the ground itself. The energy is produced by tension in rocks under strain, or at fault lines; and the Pennines has all the right conditions. It is quite likely that one reason why the area is so rich in UFO sightings is the phenomenon of earthlights; which whilst still controversial have been demonstrated under scientific conditions. Indeed some British scientists are even now



Unexplained object photographed in March, 1976 by professional photographer, Chris Waller, of Warminster, during a weekend watch at Starr Hill, between Battlesbury and Scratchbury, September 1975. The object was described as oval in shape, amber-orange and glowing fiercely; it bobbed above the treeline only for a few seconds. In this the phenomena outlined by Jenny Randles. The above photo was taken from the Southern Evening Echo, Thursday, March 4, 1976.
 EDITOR

crushing rocks under special conditions and actually CREATING UFOs!

Ball lightning and earthlights are just two of natural phenomena reported as UFOs. There are certain to be others. However, they are not what we think of when we use the term UFO. For they are amorphous blobs of energy and not physical craft. For this reason serious anomalists have taken to calling such things UAPs (or Unidentified Atmospheric Phenomena) to plainly distinguish them from the UFO as such. UAPs may account for as many as three-quarters of our genuine UFO reports. But do they account for them all?

What about the traditional UFO? Is it a myth, or does it exist? There are certainly some cases, including those discussed earlier in this article, which do not appear to be UAPs. They look and behave like craft of some kind subject to this baffling paradox of being both real and unreal at the same time.

Cases like this keep the anomaly researcher on his toes and convince most of them that there is more to the UFO mystery than lights in the sky or misperceptions. But we have no definitive proof. Nobody has ever produced one good photograph of a UFO on the ground, or of an alien pilot. There are no crashed UFOs. And the hard physical evidence is poor beyond question. Yet there is sufficient prima facie evidence from case after consistent case to suggest that something is roaming our skies whose origin is less than earthly.

Of course, if we could ever prove that there is a government cover-up the problem may be solved overnight. For surely nobody would force a cover-up of such epic proportions on the whole world for just a few stray lights in the sky. Whatever is the subject of the cover-up MUST be worth it. And that means something earth-shattering indeed.

JENNY RANGLES

Ms. Randles latest book 'Abduction' (Robert Hale, 1988 £10.99) has just been published, recommended.

UFOs

THIS IS NOT A HOAX SAYS NAVY EXPERT

DAILY STAR, Tuesday, July 18, 1989

**EXCLUSIVE pictures by witness ED WALTERS in Gulf Breeze
Words by FRANK CURRAN**

THEY came out of the night sky and hovered over the sleepy seaside town of Gulf Breeze. The residents could not believe what they were seeing.

Before that moment they would have said that UFOs existed only in the imaginations of Hollywood producers.

But the evidence of their eyes showed that they were **REAL**.

Convincing

Now these remarkable photographs that they took are being hailed as the best-ever proof that UFOs exist.

US Navy scientist Dr Bruce Maccabee, regarded as the world's top UFO authority, says: "They would be extremely difficult to hoax."

Maccabee spent several months studying 40 pictures taken by residents of the Florida town.

"I and others searched for irregularities which would prove that hoax techniques were used.

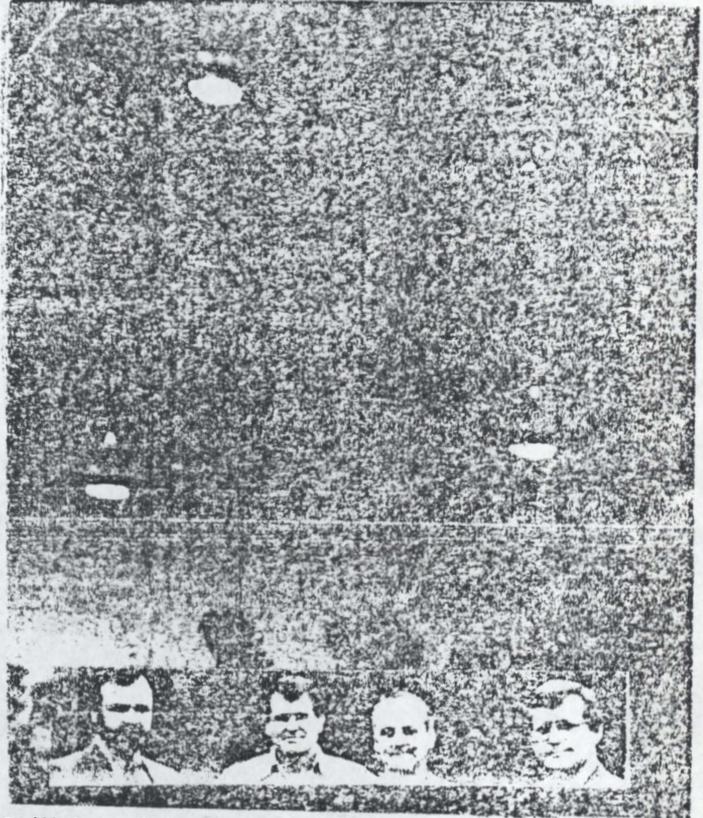
"I could find no convincing proof. I say they are real."

Now the spaceship snapshots that have rocked America will be presented to an international UFO seminar in Leeds on July 21.

Organiser Philip Mantle says: "They are the biggest-ever breakthrough in the UFO world.

"Very eminent ufologists are putting their reputations on the line by stating that they are genuine."

The spaceships visited Gulf Breeze between November 11, 1987, and May 1, 1988.



PROBE: Gary Watson (left), Bob Reid, Donald Ware and Charles Flannigan

CLOSE ENCOUNTERS: Alien spacecraft visit the small town of Gulf Breeze and hover over Ed Walters's house. Experts are convinced the pictures are genuine

They were witnessed by 140 residents from doctors to community leaders. Many of the best photographs were taken by builder Ed Walters.

His most extraordinary shot was of three craft hovering together a few hundred feet above his home.

Another shows a cylindrical spacecraft projecting a blue beam down to earth.

Ufologists were also excited by the appearance of a large circle of damaged grass near the local school.

Posing

Independent investigators Gary Watson, Bob Reid, Donald Ware and Charles Flannigan quizzed the witnesses and found their evidence "100 per cent reliable".

The pictures will be presented to the Leeds seminar by Walter Andrus, international director of the worldwide Mutual UFO Network.

He says: "My feeling is that the aliens CHOSE Gulf Breeze to show themselves.

"And I believe that they will return."

Truth is sometime stranger than fiction is it not. Shortly before I was given this copy of the DAILY STAR by researcher Brian Smith, I had only just received from the USA, a magazine we exchange with called IUR (International UFO Reporter) for May/June 1989: THERE on page 20 we saw: HOW TO TAKE YOUR OWN GULF BREEZE PHOTOS. The article by Wim van Utrecht shows, as we can see in these following photos how it can be achieved.

As I received IUR well before the story broke in the Daily Star, has left me wondering why exactly why this Daily paper was so far behind?

To state categorically that such photos are real is not in the best interest of the person who made such a statement. Yet as we read in the newspaper article, 140 residents witnessed the event.

The story was taken a little further on TV-AM in July when they invited a guest speaker to comment on the colour photos. Again, well AFTER the alleged incident. CNK caught some of the interview: 21 July 1989

WALTER ANDRUS: (MUFON) ...television, analysis in London UFO congress there the picture you just saw (as in CNK-STAR) was made by Ed's wife, Francis when he was in the shower and she said: "It's here" and she ran out and took a picture of the object over the school yard behind their home. Their pool in there back garden, in Florida shows their little dog. The next picture that follows Ed came out of the shower with a towel wrapped around him and she photographed him also with the object.

TV-AM: Mr. Ed Walters he actually said he had been kidnapped by these aliens have we got any evidence of that?

WALTER ANDRUS: He doesn't know he's been kidnapped. But we know on the morning of May 1st, at one ten he took a set of stereo photos of two different objects and he woke up an hour and 15 minutes later lying with his face in the sand on the beach at San Rosa Sound in the Gulf of Mexico. They placed him under hypnosis by Dr. Dan Pensacola, who found, yes, he had been abducted on that morning and he went through a weird experience in genetic engineering or experimentation his case but he has had four instances of missing time and each time he has been subjected to physical examination, experiments, and so on, without his knowledge or permission.

TV-AM: Sounds like an amazing story Walter. But if these things are aliens, if we are seeing spaceships, how do they actually get through all the radar that is surrounding our globe. Why don't officials know about these?

WALTER ANDRUS: The first thing we did was contact the major Air Force and Navy bases in the area the.....Air Station is right there in the same bay where we do advanced jet flight training for our Navy pilots. England Air Force Bases in the adjoining county which is only 20-30 miles away. On 18 different radars in the immediate area they were not detecting the presence of objects because they were coming in low under the radar which is sweeping above them.

TV-AM: So they know about these things which they have to avoid, obviously?

ANDRUS: So the government brought in 8 mobile radar stations and lined them up along the coast of Florida, under water level so that they couldn't come in undetected. But in this case they won't tell us if they detected them or not. (Seminar was held in Leeds later). Next to be interviewed was Philip Mantle of the Mutual UFO Network (MUFON): **MANTLE:** The investigators in Breeze were able to supply Edward Walters with special cameras which were sealed; the film was tested beforehand, with a wax seal on the back and by doing this. And by doing this they attempted to rule out a hoax.

DAVID FROST (TV-AM): Well we have got some other photographs will you take us through these. At this point various fakes were displayed which were explained but the Gulf Breeze ones (in which there were over 30 taken) were declared REAL, despite looking like lampshades.

David Frost asked why are the ufologists so sure THESE photographs were real!

PHILIP MANTLE: My colleagues in the States say the photographs have been analysed by Dr. Bruce Maccabee who is an optical physicist with the United States Navy, and he is currently working on the Star Wars programme. And he is probably the leading authority on analysing this type of photograph. As yet he has been unable to prove these photographs a hoax.

DAVID FROST: What is it that makes those pictures seem not a hoax?

PHILIP MANTLE: The other photographs which we have not got here today, some have been taken with a 3-D camera which has 4 lenses on the front and also a stereo camera which has a reference point in front of it, this enables the scientists to calculate the distance from the camera and also the size of the image on the film, which tends to rule out the hoax.

FROST: Let's assume for a moment this was genuine, the UFOs over Gulf Breeze, Florida; were there creatures inside, and if so, why did they choose Gulf Breeze, Florida, rather than...Barnsley?

MANTLE: Well, yes, the people of Gulf Breeze have reported creatures in association with these objects. Why they should choose Gulf Breeze...I'm not sure? But there is several large military establishments in and around Gulf Breeze, and the investigators in the States believe this was possibly one of the reasons why the UFOs were there.

FROST: What was the creature type-things they found happening in Gulf Breeze?

MANTLE: The general description of the creatures associated with the UFOs in the States is round about 4-4½ feet tall, humanoid in appearance but...

FROST: Humanoid?...

MANTLE: Yes, large dark eyes and...basically that's about it, greyish type skin.

FROST: What was their hair-style like, yours or mine?

MANTLE: More like yours.

FROST: Particularly tidy for Sunday morning, these creatures from outer space. What will the next episode in this saga be.

MANTLE: Further computer analysis of these photographs from Gulf Breeze, is underway at this moment under the direction of Dr. Bruce Maccabee. Hopefully at the end of this year or early next year the full analysis will be presented to the public.

FROST: OK Philip, we will wait for that, thank you very much indeed. So far this story has not made it into TV-AM News, I don't think it will this morning either, but maybe in a few months time, who knows, it might.

END OF INTERVIEW.

HOW TO FAKE YOUR OWN GULF BREEZE PHOTOS (Special report from Jerome Clarke of the INTERNATIONAL UFO REPORTER Magazine of the Hynek Center for UFO Studies at : 2457 West Peterson Avenue, Chicago Illinois, 60659, U.S.A (SEE NEXT PAGE)

Nuclear power isn't ozone friendly

MRS Thatcher claims nuclear power could stop the Greenhouse Effect because it doesn't produce carbon dioxide.

Yet a report by Friends of the Earth shows that nuclear power produces four times more CO₂ than renewable energies would, and 20 times more CO₂ than energy efficiency measures.

Nuclear power produces CO₂ in the construction of nuclear stations, and from the extraction and preparation of uranium.

If the Government put the billions it spends on nuclear research and development, reprocessing and waste disposal into energy conservation instead we could slash carbon dioxide at a stroke.

The Government is fighting the House of Lords amendment to introduce energy conservation into the electricity privatisation bill. This shows it is not concerned about the Greenhouse Effect: it is merely looking for new propaganda for nuclear power.

MARK KINZLEY, Vice Chair of Redbridge Green Party, Gaysham Ave, Gants Hill.

How to take your own Gulf Breeze photos

by Wim van Utrecht

■ ■ Wim van Utrecht is a prominent Belgian UFO investigator, writer and editor.

In a letter published in the September/October 1988 issue of *IUR*, Ed, protagonist of the now-famous Gulf Breeze photographic/close-encounter case, challenged everyone who questions his sincerity to duplicate his series of alleged UFO photos. I immediately set to work. The article that follows reports the outcome of my experiments.

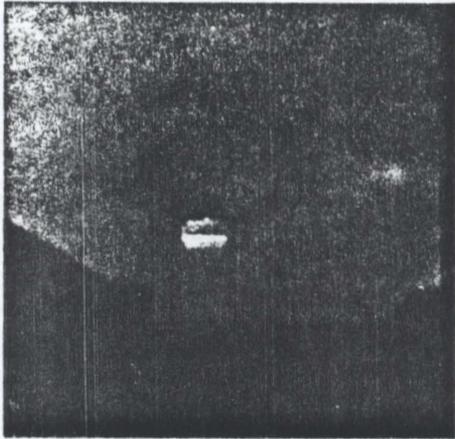
Appearing below are three photographs which were taken from my apartment in the city of Antwerp on a late afternoon in January 1989.

The first photo shows a mysterious illuminated object appearing in the northwest.

In photo 2, as the craft approaches it casts its light on the edge of the roof. Judging from the size of the reflection, we can estimate the object's diameter at about six feet. (Compare this to Ed's "road shot.")

In photo 3 the object passes behind the chimney. (Compare to Ed's "tree shot.")

Photos 4 and 5 require little comment. The lid of a coffee pot is taken apart and a small lightbulb is inserted.



Photograph 1

Black pieces of paper are glued around the rim to create the illusion of "dark windows." The lid is then suspended on a wire which connects the lightbulb with a battery. Mount your construction in front of a window and make sure the light from within the transparent model is reflected in the window pane. (See arrows on photo 5.) Photographs are taken from the inside with the camera pointing toward a suitable background on the outside. Inside reflections and obstacles can be used to create special effects (such as can be seen in photos 2 and 3). Total cost: \$4.00.

Edward Harris
Cosmology Newslink
16 Newton Green
Great Dunmow, Essex CM6 1DU
ENGLAND

Dear Mr. Harris,

Thank you for your letter of July 25.

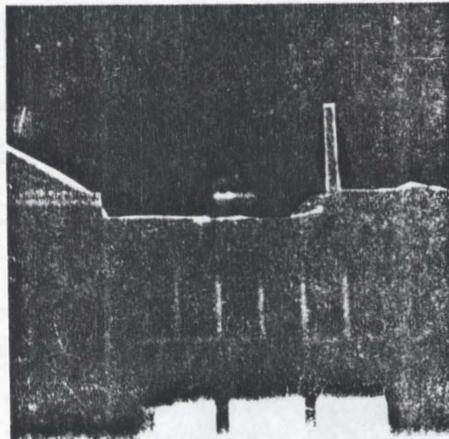
Certainly you may use the *IUR* material.

Gulf Breeze is one of the strangest episodes I've ever witnessed in my many years in American ufology, and it's generated hundreds of thousands of words, most of them unhelpful in resolving the issue. I simply don't know what to make of the case, though if it were less extraordinary, considering the evidence that is now available, it is safe to say it would long ago have been accepted as authentic. Here, though, we're dealing in higher stakes than usual and a cautious, responsible skepticism is warranted. As for *IUR* we're going to give the subject a rest until new and significant evidence emerges.

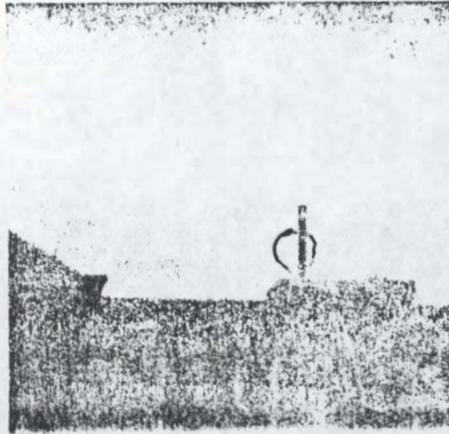
Yes, things are hot here, too. We've had two miserable summers in a row, though this one is not quite so bad as last year's, and the terrible drought of last year has lifted from most of the country. It certainly does make one wonder about the greenhouse effect.

Since you asked, I think *Cosmology* is a good title.

Cordially,
Jerry Clark
Jerome Clark



Photograph 2

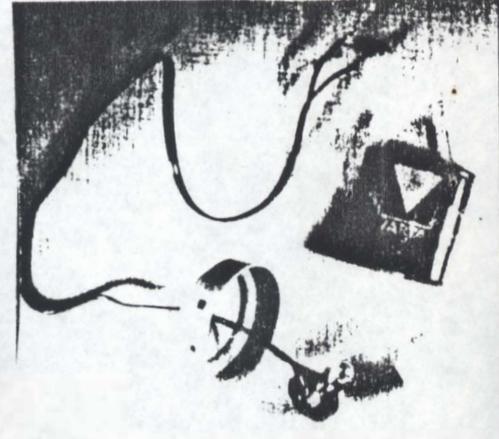


Photograph 3

Two objections can be raised:

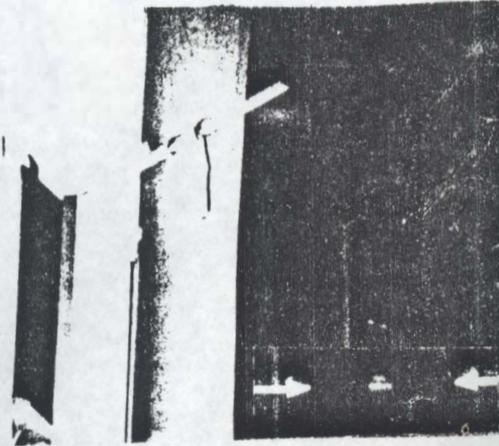
(1) No Polaroid photos. I did not use an old model Polaroid such as Ed used, simply because I do not own one. I am convinced that, had I used a cheaper model, the result would have been even closer to what Ed came up with. Not only would it have given me the opportunity to verify the quality of the prints more quickly and make adjustments where necessary, it would also have unburdened me from focussing on an imaginary point somewhere in between the reflection of the model and the building on the other side of the street. A "problem" is what you have when you use a more sophisticated (but still cheap) Zenit 12XP camera, as I did. It is far more easy to estimate variations in distances from a high-quality photo than from one taken with an old model camera which has no distance regulation.

(2) No stereo photos. What makes me suspicious about Ed's stereo pictures is that they are markedly different from, and far less spectacular than, his first



Photograph 4

This is the best reproduction possible of these photos.



Photograph 5

series. In fact, they show little or no detail at all. The patches of light that can be seen on them may be explained in many different ways. In fact, we have only Ed's word for it that they were not created by ordinary light sources. Consequently there is little point in trying to duplicate this series as well. Not only would I have to start looking for a good location, I probably should use comparable camera equipment, which I do not have.

Still, Ed will have to agree that I succeeded fairly well in duplicating his UFO photos. It did not take me much time, nor did I have to spend big money in doing so.

Perhaps it would be useful to have my prints analyzed as well and to compare the outcome with Bruce Maccabee's findings on the Gulf Breeze photos. ■

* You have now read the evidence in this unusual case, and have read Jerome Clark's remarks into it. It is now again a case of ONLY TIME WILL TELL, whether the Gulf Breeze UFO pictures were one more of those unwanted hoaxes, which makes ufology so much more difficult for the investigator. But on the other hand, should they be REAL... Well, what do you think?

EDITOR



Jerome Clark

LEFT: Jerome Clark is Editor of the International UFO Reporter, with whom we exchange CNK.

The letter (left) was edited due to lack of space, and to use only relevant data concerning Gulf Breeze



WASHINGTON (UPI) — An asteroid, blazing through space at early 50,000 mph, skirted past Earth last month in a cosmic "close call," NASA said yesterday.

The half-mile wide asteroid, called 1989FC, passed within 500,000 miles of Earth — about twice the distance to the moon — on March 3, the space agency said.

"On the cosmic scale of things, that was a close call," said Henry Holt, an amateur astronomer from Flagstaff, Ariz., credited with discovering the asteroid.

NASA scientist Bevan French said if the asteroid had collided with Earth the impact would have been equivalent to the explosion of 20,000 hydrogen bombs.

It would have created a crater 5-10 miles across — or large enough to destroy a good-sized city, French said.

If it had hit an ocean, it would have created killer tidal waves that would have swept over coastal regions.

Hydrogen bomb inventor Edward Teller recently proposed using an atomic weapon to destroy asteroids found to be on a collision course with Earth.

NASA noted it is popularly believed that a six-mile diameter asteroid hit Earth about 65 million years ago and "caused a global catastrophe that destroyed the dinosaurs."

Brian Marsden, of the Smithsonian Astrophysical Observatory, said 1989FC passed closer to Earth than any asteroid since Hermes in 1937.

The Cambridge observatory, the international clearing house for such discoveries, recorded the discovery of 1,800 asteroids in 1988, but only 30 asteroids have ever been known to cross Earth's path.

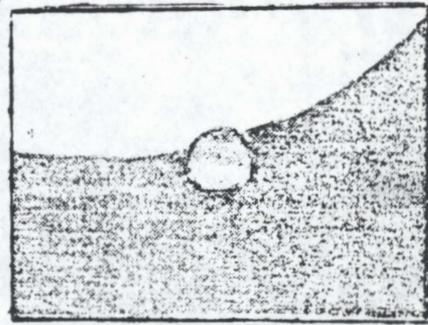
March 23 1989 via Duplantier of Canada, and thanks to Roy of Ropers for drawing our attention to it...
N FRENCH!

New planet Greenwood 5/8/88

A GROUP of astronomers making routine measurements on a star have found the first confirmed evidence of a planet orbiting a star other than our own sun.

David Latham, who led the team that made the discovery, said the planet was 30,000 times larger than the Earth and probably lifeless because it would have a surface temperature of hundreds of degrees.

NOVOSTI



USSR PHOBOS PROBE TAKES PHOTO OF MARS
Above photo sent to us from California reporter Trisha Donoethue, shows the moon Phobos orbiting around Mars in March 1989.

MOSCOW (NOVOSTI PRESS SERVICE) March 25. Filming was when the craft was between 279 and 191 kilometres from the martian moon. The position of the craft and Phobos helps to get additional information to pinpoint a place for landing probes on the satellite.

Now the USSR Academy Of Sciences are processing information received to prepare a switchover to synchronous orbit.

MOSCOW MARCH 29: RADIO CONTACT IS LOST.

Russian experts were given a week to find the cause. TV pictures were sent back to Earth on March 27, but mission control failed to establish contact with Phobos 2 despite repeated attempts. It was discontinued on April 15 1989.

"A weak response signal was received, but quickly disappeared" It is rotating and its batteries not supplying energy.

Two Phobos probes were launched and contact with Phobos Probe 1 was lost due to an erroneous order beamed to it.

NOVOSTI PRESS SERVICE.

*For Information on NEPTUNE & voyager see page 2

THE SUN, Wednesday, August 9, 1989

Spy shuttle's secret mission

THE space shuttle Columbia took off yesterday on a top-secret military mission to launch a sophisticated spy satellite.

Space flight bosses did not reveal the launch time until just nine minutes before it blasted off from Cape Canaveral, Florida.

And they were forbidden from saying how long the flight will last — or even what the five astronauts will eat.

But aerospace experts say Columbia, the oldest of the three shuttles, will deploy a satellite to watch the Russians.

Some say it is so powerful that it can photograph a newspaper headline.

Psychic

Beyond Physical Sight

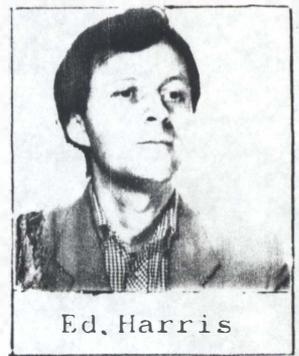
SPIRITUALISM

Will we LIVE after we die?

INTRODUCTION BY EDWARD HARRIS, Editor

February 27th, 1971

THE GREATER WORLD



Ed. Harris

THOUGHT and MEMORY in the Spirit World

By FRED C. SCULTHORP

One of the many things that impressed me most after many visits to the Spirit World by astral projection was the effect of thought.

Naturally, in the first planes of spirit this concerns the earthly thoughts that people bring with them. Each is an individual whose only "possession" is a lifetime of thought which the spirit body holds.

Memory, like many other things, is taken for granted, yet a moment's reflection will make us realise that *nothing can, or has ever happened* without a cause. Thought is generated electrical activity, and like all electrical movements, has a vibration frequency and pattern which is impressed on the living entity, therefore there is a retention of that thought which constitutes a "memory" always at hand. This can be realised when a competent psychometrist handles an article belonging to a person and "senses" outstanding episodes in the life of the owner, because the article has been impressed by the magnetic patterns. I stress these incidental "mechanics" of thought as it is generally overlooked on earth as we are all living on the same plane, but in spirit the effects of thought are clearly apparent.

In the spirit world we do not suddenly become "all wise" as we have only our store of earth memory, but if it contains some knowledge of spirit truth, the reality of survival, and a way of life accordingly, then the mentality is not incredulous and opens in a wonderful way. The spirit plane of new arrivals is near the same frequency of vibration as the spirit body and is quite earth-like, and for quite a time some good souls cannot understand that they really *are* in the world of spirit. On one occasion in the spirit world my spirit teacher took me to a small group of people.

They were evidently told that someone was coming to talk to them as they were smiling and seemed glad to see me. There were about eight of them sitting on chairs, and I sensed that they were not aware that they had "passed over," and were living in what is sometimes called "the plane of illusion." I knew that to bluntly tell them their state would only bewilder them, so I tried another method. I went to each one and whispered, "What day of the week is it?" Each was puzzled and amused at their uncertainty and named different days. The last one, an elderly lady, thought for quite a time without result, laughed and thought it was her usual bad memory! Anyway, it was a start to make them realise that they were now in a place where there were no "days of the week," and what was more apparent, no nights.

I have a daughter in the spirit world and on earth she was fond of horse riding in Epping Forest, near London. During one projection my spirit teacher took me to a nice country house in spirit just as she was returning from a ride. We chatted for a while, then my daughter asked me to wait as she wanted to see a friend in the house.

I was rather worried about her horse as there were flower beds, and it had walked off. I found it round the back of the house on a grassy part with some

I first met Mr. F. Sculthorp in the 1960's when I was a newspaper delivery boy. I discovered his interest was spiritualism. On enquiring about it, I discovered Mr. Sculthorp was having astral projections into the spirit world, under guidance from his spirit guide. He had written a book * on the subject. He had also written articles for professional psychic magazines too, up until his death in 1974. In our last issue we touched on the subject of total recall of memory by spirits. In this article by Fred, he explains why.



Fred Sculthorp

Fred's only book, I am aware of, tells how he went to the spirit planes by astral projection at an early age.

Now out of print but copies may be available in your library. *

other horses. I noticed that her saddled horse had a nice smooth coat, but the others were unclipped. It is indeed hard at times to realise that one is in the Spirit world, and Zodiac emphasises that there is nothing on earth that has not a counterpart in the bright realms. My daughter was wearing her usual riding clothes, and she once told me that she has a special robe which she wears when taken with groups visiting higher states.

I have ridden a horse in spirit and I wrote about it in "Excursions to the Spirit World." It is an experience I have not forgotten, for if one is really an animal lover and not interested in them because they win races or competitions (or because they provide handy targets for shooting) love directed at a horse is returned "full measure and brimming over" and can actually be felt in all its fullness. I have found this so myself.

Zodiac tells us (forgive me for quoting him again, but he is always right) that the horse is the nearest animal to man, it has toiled through the ages for man, and in spirit can still love mankind. Thank God for everything—including horses.

* The above is typical of the many fascinating stories in Mr. Sculthorp's book, "Excursions To The Spirit World," price (75p), p.p. (8p).

IT IS MY PLEASURE AS WRITER OF I.P.P. TO HAVE BEEN ASKED BY THE EDITOR OF CNK TO REVIEW A NEW & EXTRAORDINARY BOOK. The authoress of the book is lucky enough to share a spirit plane that most of us can only read about in dreams.

Her bizzare and totally unique relationship with an entity far beyond the normal spirit realm is hardly believable yet totally fascinating.

All that she says of the spirit life interlinks with what most of us already know and accept, yet she extends our understanding possibly too far, into the realms even the best of us can hardly comprehend. The book is not for the timid, she says, or for an untrained mind. The average person would not have a hope of understanding what she has to say. It is far too critical of "Mankind" for most of us to accept. Her story is scattered and broken, often leaving the reader confused and lost. It would be easy to lose faith in this book, but with perseverance, it becomes clear later on.

Azrael and his bride do not always agree on the same things, this leads to confusion and controversy. For example

they talk about fear. We of the human flesh, FEAR death, that we have become so far distorted from the truth about it, that we have made up legends of "DEATH" that we all know and accept. It is her desire that we should overcome that FEAR and "open our minds" to reality. To know all that she knows. Parts of this book are grossly insulting to human kind as you will see if you read page 174.

Azreal tells us that physical love making produces physical flesh for the soul purpose of incarnation! If Azreal's bride had her way, she would create bedlam amongst mankind. No more babies-it's too cruel for the spirit.

To sum things up...Azreal teaches us of the **MANY** and the **ONE**. In the **BARDO THODOL**, there is a very apt verse spoken by **BUDDAH**, etc:-
"THINE own consciousness, shining, void and inseparable from the great body of radiance, hath NO birth NOR death and IS the immutable light.

REVIEW (shortened to to lack of space was by STEPHANIE WALES for I.P.P. INVESTIGATIONS.



JULIE FULLER

SURPRISE FOR JULIE

Young Julie Fuller of Bishop's Stortford, Herts., was totally amazed when we told her, that her item in the last issue on page 21 had caused international interest.

From deepest Yorkshire, astronomer Martin Dawson telephoned us to say that the small size print in Julie's article was good contrast and HE liked it despite some moans from those now visiting the optician.

From Canada: "I had to laugh when someone asked for a magnifying glass to be sent with each issue. Don't you think you're pushing readers too far? Page 21 ENCOUNTER WITH A FAITH HEALER...give us a break will you? If a story is worth reading it should be big enough for everyone to read, young and old alike. After a reduction of more than 55% it really is too small to ask MY readers to visit the opticians or wear glasses!" Gene Duplantier, Editor DELVE Magazine.

From Spain: Hugh De Cruz (who runs his own spiritual centre) "The faith "healer" was an EVIL PERSON. Most faith healers are evil and they do not know it.

Your editor even heard somewhere that some healers pick up 'evil' from pets. Do you BELIEVE all this? Well, your guess is as good as mine. Whatever the answer is, Julie's article was the MOST talked about one out of the whole magazine. Well done Julie, you have got everyone talking, and to making this magazine more controversial. Got any more like that?

Editor.



Calling E.T.

By Jason Fagan

fifty years, or so, have we had the scientific knowledge and practice to transmit and receive electromagnetic waves other than heat and light. In terms of the span of the history of life on Earth then, we are dealing with only one part in eighty million or so.

Assuming that we do not blow ourselves up, it seems reasonable that in a hundred years or so, we will have what to

About 27 years ago Jocelyn Bell, a brilliant radio astronomer at Cambridge, became the first person to detect pulsing radio waves from the sky. Most of the analysis was apparently done by her, but it was the head of the department, Professor Hewish, who was given the official credit and won the Nobel prize for the discovery of pulsing stars, or "pulsars" as they become more commonly known as. They were less liberated times than today and many have suggested that if she had been a man she would have probably jointly won the prize. That is another story. Let us get back to the main point once more.

Following on from this discovery was the remarkable BBC television series "A for Andromeda" by Sir Fred Hoyle. This began with scientists searching the skies for alien signals using radio telescopes tuned to the frequency, or rather the wavelength, of the Hydrogen line (Hydrogen is one of the most common elements in the universe). The scientist then discovered radio signals on this wavelength which turned out to be an alien binary coded transmissions.

For a few days after the first 'pulsars' were received, the Cambridge team actually considered the possibility that the pulses were in fact some form of communication. They were even referred to half jokingly at the time as 'LGMs' standing for Little Green Men.

Throughout the professional scientific world can be found the belief that there is alien intelligence out there somewhere. Many meetings have been held to discuss possibilities and probabilities such as Project Ozma. This article deals with my own ideas on this subject and some facts which cause me to suggest that a radio amateur could well be the first person to pick up a signal from space from other living beings.

Let's have a look at a few basic ideas, and some rather 'hairy' assumption that I believe many scientists would agree with which form the basis of this article. If there is intelligence, then there will either be quite a lot of it around, in which case sooner or later, it will communicate with us if it is rather rare and perhaps far away, even if the intelligence is developed far in advance of us, they may not know of us at all.

If we look over three or four thousand million years that some forms of life has existed on Earth, it seems reasonable to assume—unless there were previous intelligent civilisations that we do not know about—that only in the last



Was a tiny space creature 'arrested' in the 1950's or is it all a joke?

US now is an undeniably advance in technology and much more potential for communication outside present scientific boundaries.

If alien or 'extra terrestrial' intelligence (ETI) is fairly common then we will be more likely to come across one that is fairly close to us in development, but not behind us. We would only be able to detect the latter if we, ourselves, get in a space ship and go out and find it. If this intelligence is in advance of us, it will probably have been through the same sort of scientific discoveries we have made. First electricity, then electro-magnetic radiation, followed by atomic science, fission and fusion, will have to be developed, all probably in parallel with the development of semi-conductor devices etc.

It may very well be that we have been visited by ETI in the past and possibly have been given up as a bad job for the time being. I feel there is a strong probability that if such a visit occurred a sign would have been left in the solar system for us to find when we are intelligent enough. Such sign is unlikely to be left on the Earth unless we can not see the wood for the trees. The most sensible place to leave a sign would be the dark side of the moon.

CALLING E.T.

Looking for Electromagnetic Radiation

At the same time as leaving such a sign as I propose, would they not also be looking for electromagnetic radiation from Earth? I suggest that if there is ETI, they would almost certainly have detected the first really high radiated powers transmitted to reach into space—in the form of RADAR during World War II. Even today, RADAR pulses are probably the highest energies beamed at any one instant in one direction, although very high ERP (Effective Radiated Power) digital scatter transmissions are also being sent. One might also consider the vast energy in the EM spectrum of an atomic or hydrogen bomb explosion!

If really high energies were first transmitted around 40 years ago, then we might expect to have seen a reply by now, if there had been an intelligence higher than ours within 20 light years of us. One light year is approximately 10,000,000,000 km. To help you grasp distances, the sun is around 8 light minutes away, whilst the next nearest star is 4.25 light years away (Proxima Centauri). Sirius, the brightest star in the sky from Earth, with its companion white dwarf star, is 8.6 light years away and there are thousands of stars, many of them of similar composition to that of our sun, within 50 light years. Quite a few of them are invisible to the naked eye as they are too dim to see.

It should be realised that frequencies as we express them in amateur radio are numbers directly related to the time taken by the Earth to revolve. One second, i.e. 1Hz, is a division of one day. However, there are also frequencies which must be the same anywhere. A typical example is that of the lowest resonance of the hydrogen atom—known as the hydrogen line—at 21cm. This is at approximately 1420MHz. This frequency varies slightly depending on doppler shift—the line frequency of hydrogen line radiation coming towards us will slightly increase. If the radiation is heading away from us the frequency will be decreased.

In exactly the same way, light radiation from the stars shifts to the red of the light spectrum when moving away from us and shifts in to the blue when coming towards us. Since the universe seems to be expanding, the further away an object is the more it is shifted into the red. The most distant sources of energy, 'quasars', actually have their light frequency halved and can be subject to a shift up to 3.4 times. However, the hydrogen 21cm line is normally fairly narrow and can be easily defined.

What type of transmission

We now have to consider what type of transmission might be sent to us in reply, and at what frequency it might be. However, this is where we start the fun, for unfortunately we have an inconvenient number of fingers and thumbs. This has caused us to use the decimal system, which, to scientists, is a complete bore because 10 can only be divided by 1, 2, 5 and 10. Man's creator, perhaps, made a little error. It would have been so much more convenient to have had six digits on each hand.

If this had been the case, we could have used the duo-decimal system, 12 being divisible by 1, 2, 3, 4, 6 and 12! This is all rather unscientific, and in basic science the binary system might well be more to the point; numbers such as 1, 2, 4 and 8, or 1/2, 1/4, 1/8 and multiples of these fractions could be more likely.

The characteristics of any alien transmission are likely to be directly related to binary division or multiplication of the hydrogen line frequency. ETI would be unlikely to transmit to us on 21cm itself, because the QRM (or background interference) coming from the stars etc. at this frequency can be high. It is not impossible that 21cm would be the frequency. If it is not, the transmission are likely to be at a spacing reasonably close to it, but far enough away from QRM to be very low—ie plus or minus 10% or, to use a binary frequency multiplication, between 7/8 and 1 1/8 times the frequency.

ETI would certainly avoid frequencies below 150MHz and probably below 1GHz because they would know that low frequencies would be absorbed by our atmosphere. Having received our earliest transmissions, they might come to the reasonable conclusion based on the aforesaid that they should send to us on a frequency between 1GHz and 1.420GHz. Higher frequencies would be less likely, as these require higher and higher technology to be used effectively. If they received signals sent between 1940 and 1945, they could see that frequencies were gradually increasing. But they might well appreciate that we could not use very high powers and also might not have extremely sensitive receivers for the higher microwave frequencies. They would also know that the higher gain antennas, at frequencies over a few GHz, require much higher technology in the accuracy with which dishes are made, especially the larger ones.

Therefore, I feel that the chances are high that a frequency between 1GHz and 1.4GHz would be used. A reasonable area around one-eighth lower than the hydrogen line falls slap in the middle of the 23cm band amateur band. So, here we come to the big crunch. Radio astronomers do not use this band very much and amateurs have to share this band with some amazingly powerful RADAR stations such as the recently established chain putting out around 1000 Mega Watts at London airport at around 1270MHz. This is a lot of power considering that most microwave ovens operate at this frequency, at powers up to a maximum of 1000 Watts.

How about the mode of transmission? (ie Frequency Modulation, Frequency Shifted Keying, etc.). I have asked myself here what would I do if I was an egghead on a planet going around a star in the Sirian sector of the universe who wanted to communicate with Earth. I would vote for binary digital keying or some type; I would use a spread spectrum and a lot of power. Such a spectrum might occupy around 12MHz or bandwidth with transmissions every 120kHz or so, thus allowing any of them to be received.

Optimum reception would be with 100 different receivers picking up the entire spectrum and adding it together. However, I do not think power would be a problem, although I have a hunch that extremely high power—such as 1 million Mega Watts into an 80dB gain antenna—would be fairly difficult at a frequency of 100MHz or so. Our LGMs might realise that they could select an unfortunate frequency which could be cloaked by terrestrial transmission, even with the spread spectrum transmissions. Despite this, we should all be ready for "who's that down there saying who's that up here".

What could happen?

Let's look at the scenario that just could happen at any time. I could imagine myself tuning in my receiver on 1270MHz and coming across a strange and fairly wide

CALLING ET.

digital transmission to the west. I suppose my curiosity is as good as anybody else's, so having adjudged the direction of the transmission, I might note that it has moved slightly in one direction. I would then feed the direction data into my computer and it would confirm a due west location. Our initial conclusion would be that some one is having some fun in South Wales. But a quick call to a friend reveals that he is getting it in the same direction. So, is it an artificial satellite gone berserk?

Finally, one by one, all the stations listening would note down the exact time that the signal begins to fade violently and then fade completely. It might strike someone that these times were related to the longitude of the listeners. The band would soon be buzzing with the news that a satellite had gone wrong, in exactly the same way as actually happened a few years ago on the 13cm band. A few amateurs heard a whistling noise somewhere near 2304MHz which proved to be a Russian satellite that had malfunctioned.

Almost one day later the digital signal appears in the same direction. This time the signal disappears 4 minutes earlier, thus revealing that it is keeping sidereal time (time measured by the stars) rather than Earth time. It was therefore, ETI and not a satellite!

So as you might see, the first people likely to speak with ET might be amateur radio enthusiasts.

73's

Jason Fagan (AMSAT UK)

SPACE RIDDLE OF UFO 'FORCE'

TWO men probing a series of strange circles which have flattened crops in fields all over the South of England warned last night: The Force is with us.

This summer, 170 of the swirling shapes have appeared overnight. Eleven occurred without warning in Hampshire and Wiltshire on Sunday.

Pat Delgado, former U.S. space agency radar expert said: "There must be some force field manipulated by unexplained intelligence."

He has been looking at the circles with local government official Colin Andrews. They believe a Harrier jet pilot found near circles in 1987 fell to death when his plane crossed a high energy beam that causes the shapes.

Mr Delgado has warned the Ministry of Agriculture that crops inside the rings should not be eaten.

But the Ministry thought the circles were caused by small whirlwinds or fertilisers.

The Sun,
Tuesday, July
11, 1989

CNK will be covering in full the enigma of the grass circles in forthcoming issues and we will try to take an in-depth look at this situation.

INTO SPACE WITH POETRY

By Doris McShea

U.S.A.

Doris McShea has been writing her brand of space poetry for many years, and when she saw a copy of Cosmology Newslink, she thought it lacked this final touch. So we have given her a space. Here is her first:

TO KNOW

DO NOT ASK IT,
TO BE EXPLAINED
ONLY THEY
WILL UNDERSTAND
WHO HAVE THE SPARK
TO LIGHT THE CANDLE

SPACERS

STRANGE IT IS, THAT I HAVE HEARD
EARTH --
TO BE A BACKWARD PLANET.
THE COSMOS VAST
NEEDS EVERY PLANET
DOING A SHARE
FOR SPREADING THE WORD
AND WE SHOULD LIKE TO PLAN IT:
DISCOVERY With its trips
FORESIGHT publishing are on the
road to what we need,
FOR WORLD AWARENESS OF MAITREYA
IS PEREMPTORY, IN THIS AGE
LEADING THE SIGHTS
OF THOSE WHO
CARE



Doris with her grandsons, Eric & Chris, in the Eagle Scouts.

AND CHALLENGING ANY UNAWARE!
SPACERS, creative leading the way.

More next time D. McShea



Left: Doris as a young woman.

Doris writes her own type of odes.

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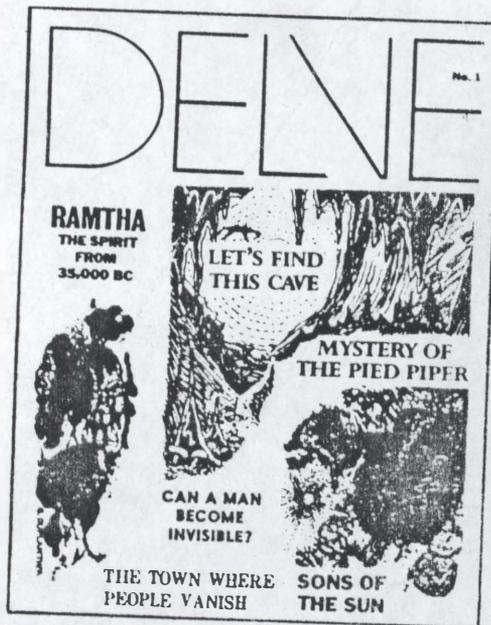
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